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Laser Light Scattering

By

BENJAMIN CHU

Chemistry Department

*State University of New York at Stony Brook
Stony Brook, N.Y.*

A Volume in the
QUANTUM ELECTRONICS Series

1974, 336 pp., \$31.50/£15.10

This book, intended to serve as an introduction to the interdisciplinary area of laser light scattering, concentrates almost exclusively upon quasielastic laser scattering techniques. The book begins with a review of classical electricity and magnetism, along with the general scattering theory, and then continues with such topics as the basic theoretical concepts related to light-mixing spectroscopy, photon-counting fluctuations, Fabry-Perot interferometry, experimental methods, and many others.

The book will be of great value to physicists; biologists, chemists, and engineers will find it most interesting.

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Light Mixing Spectroscopy

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Photon-Counting Fluctuations

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Flow Visualization

By **WOLFGANG MERZKIRCH**

*Institute for Thermo- and Fluid Dynamics
Ruhr University
Bochum, West Germany*

1974, 266 pp., \$26.00/£12.50

This book covers virtually every widely used technique for visualizing flows in experimental fluid mechanics, aerodynamics, chemical engineering, and heat transfer studies.

Flow visualization gives quantitative flow data, as well as a qualitative picture of a flow pattern; most of the techniques described yield quantitative flow data without disturbing the flow because of the presence of a measuring element. The methods discussed are optical techniques for compressible flows, marking flow fields by heat and energy addition, and adding foreign particles into gaseous and liquid fluid flows.

The book emphasizes the physical principles underlying each method, and uses flow pictures to illustrate the various techniques. It also includes an extensive bibliography for those interested in the details of technical performance.

This book will be a valuable research work for specialists and students in mechanical engineering, aeronautics, space sciences, chemical engineering, experimental thermodynamics, and applied physics.

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